MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE. Assistant Editor: HERBERT C. HUNTER.

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The MONTHLY WEATHER REVIEW is based on data from about 3500 land stations and many ocean reports from vessels taking the international simultaneous observation at Greenwich noon.

Special acknowledgment is made of the data furnished by the kindness of cooperative observers, and by R. F. Stupart, Esq., Director of the Meteorological Service of the Dominion of Canada; Señor Manuel E. Pastrana, Director of the Central Meteorological and Magnetic Observatory of Mexico; Camilo A. Gonzales, Director-General of Mexican Telegraphs; Capt. I. S. Kimball, General Superintendent of the United States Life-Saving Service; Commandant Francisco S. Chaves, Director of the Meteorological Service of the Azores, Ponta Delgada, St. Michaels, Azores; W. N. Shaw, Esq., Director Meteorological Office, London; Maxwell Hall, Esq., Government Meteorologist, Kingston, Jamaica; Rev. L. Gangoiti, Director of the Meteorological Observatory of Belen College, Havana, Cuba.

As far as practicable the time of the seventy-fifth meridian is used in the text of the MONTHLY WEATHER REVIEW.

Barometric pressures, both at land stations and on ocean vessels, whether station pressures or sea-level pressures, are reduced, or assumed to be reduced, to standard gravity, as well as corrected for all instrumental peculiarities, so that they express pressure in the standard international system of measures, namely, by the height of an equivalent column of mercury at 32° Fahrenheit, under the standard force, i. e., apparent gravity at sea level and latitude 45°.

FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

IN GENERAL.

Central and west-central Asiatic and northern European pressures were low until the third decade of the month, when an area of high barometer appeared over the British Isles and adjacent waters and moved thence slowly eastward. From the region of the Azores over southern Europe pressure continued high. No well-defined storms of tropical origin appeared over the north Atlantic Ocean. Barometric disturbances that appeared over the United States were of moderate strength and were confined to northern districts. No severe windstorms occurred on the coasts of the United States, and destructive storms that occurred in the region of observation were of a local character. August as a whole was cool with frequent rains, except in the Northeastern and Southwestern States, where precipitation was deficient, and in the middle and south Pacific coast districts, where rain seldom occurs in August. The month opened with cool weather for the season from the Rocky Mountains to the Atlantic coast. A cool wave crost the middle and northern districts from the 12th to 14th, and on the 20th a cool wave was attended by frost in extreme northern districts from the Rocky Mountains to New England. In the middle-interior portions of the country the warmer periods were from the 5th to 11th and 28th to 31st.

BOSTON FORECAST DISTRICT.

The month was cool and dry, and in southern New England it was the driest August in many years. During the last half of the month minimum temperatures were low and light frost occurred in some sections of Maine and New Hampshire. No windstorms occurred on the coast.—*J. W. Smith, District Forecaster.*

NEW ORLEANS FORECAST DISTRICT.

The month was warm and dry, and no general storm occurred on the west Gulf coast.—*I. M. Cline, District Forecaster.*

LOUISVILLE FORECAST DISTRICT.

No important storms occurred and the temperature was about normal. Except in western Tennessee and in localities in central Kentucky and northeastern Tennessee, where there was a marked deficiency, the rainfall was about normal.—*F. J. Walz, District Forecaster.*

CHICAGO FORECAST DISTRICT.

The month presented no especially notable features. The disturbances that visited the upper Lakes, tho of slight intensity, were in a number of instances attended by thundersqualls, due notice of the occurrence of which was given shipping interests. High temperatures were experienced in the central valleys during portions of the first and third decades of the month. On the morning of the 20th light frost was reported from Montana to the Red River of the North Valley. The occurrence of frost in the region referred to was forecast the morning of the 19th.—*E. B. Garriott, Professor and District Forecaster.*

DENVER FORECAST DISTRICT.

The month was cooler than usual, except in eastern Colorado and southeastern New Mexico, with an excess of rainfall in northern Arizona, New Mexico, western Colorado, and northern Utah. In southeastern Wyoming and eastern Colorado the rainfall was light. Frosts were confined to high-level stations.—*F. H. Brandenburg, District Forecaster.*

SAN FRANCISCO FORECAST DISTRICT.

August presented no unusual features. The month opened with thundershowers in the high Sierra and a trace of rain in the San Joaquin Valley. On the 24th, 26th, and 31st there were light showers in Nevada. No special warnings were issued.—*A. G. McAdie, Professor and District Forecaster.*

PORTLAND, OREG., FORECAST DISTRICT.

August was, as usual, a quiet month and special warnings were not required. There was a marked excess of rainfall that was most pronounced along the western slope of the Rocky Mountains. The temperature was generally below the normal.—*E. A. Beals, District Forecaster.*

RIVERS AND FLOODS.

River matters were quiet and uneventful during the month. No floods or high waters occurred, and as a rule the lowest stages were recorded during the closing days of the month.

The highest and lowest water, mean stage, and monthly range at 206 river stations are given in Table VI. Hydrographs for typical points on seven principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.—*H. C. Frankenfield, Professor of Meteorology.*